

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number  
**WO 2005/033126 A1**

(51) International Patent Classification<sup>7</sup>: **C07K 2/00**,  
C12N 5/06, 5/08, A61K 35/39, 35/407, A61P 5/48, 35/00

STRAIN, Alastair [GB/GB]; School of Biosciences,  
University of Birmingham, Birmingham B15 2TT (GB).

(21) International Application Number:  
PCT/AU2004/001376

(74) Agent: **PHILLIPS ORMONDE & FITZPATRICK**; 367  
Collins Street, Melbourne, Victoria 3000 (AU).

(22) International Filing Date: 8 October 2004 (08.10.2004)

(81) Designated States (*unless otherwise indicated, for every  
kind of national protection available*): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003905516 9 October 2003 (09.10.2003) AU

(71) Applicants (*for all designated States except US*):  
**MONASH UNIVERSITY** [AU/AU]; Clayton Road,  
Clayton, Victoria 3168 (AU). **THE UNIVERSITY OF  
BIRMINGHAM** [GB/GB]; Edgbaston, Birmingham B15  
2TT (GB). **BIOTROPHIX PTY LTD.** [AU/AU]; 547  
Whitehorse Road, Mont Albert, Victoria 3127 (AU).

(84) Designated States (*unless otherwise indicated, for every  
kind of regional protection available*): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

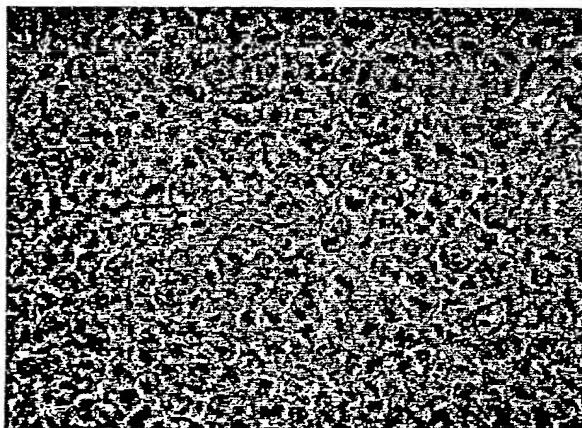
(75) Inventors/Applicants (*for US only*): **PERA, Martin**  
[US/AU]; 53 Highbury Grove, Prahran, Victoria 3181  
(AU). **HAWES, Susan** [GB/AU]; 4/6 Venice Street,  
Mentone, Victoria 3194 (AU). **STAMP, Lincon** [AU/AU];  
76/33 Southbank Blvd., Southbank, Victoria 3006 (AU).  
**CROSBY, Heather** [GB/GB]; School of Biosciences,  
University of Birmingham, Birmingham B15 2TT (GB).

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: CELL SURFACE MARKER



(57) Abstract: The present invention provides a cell marker that is characterized by binding to a GCTM-5 antibody of active frag-  
ment. The cell marker identifies a unique sub-population of stem cells that show characteristics of hepatic or pancreatic stem cells  
or hepatic or pancreatic progenitor cells. More specifically the marker is an early liver marker, which could prove a useful tool for  
the isolation and identification of liver and pancreatic progenitors for both diseased adult liver and differentiating human embryonic  
stem cells.